ENCAPS – Using Non-Cognitive Measures for Selection & Classification

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Achieving Human Resource Solutions Through Innovative Research

Operational Problems and Approaches

- **We need to better select among Navy applicants and better understand retention and attrition**

- **Assigning 45,000 adolescents (recruits) into over 100 jobs**

    Assignments, entire 20/30 year careers, are based on ASVAB scores (1.5 hour test), manpower needs, and a 7-10 minute interview with a classifier
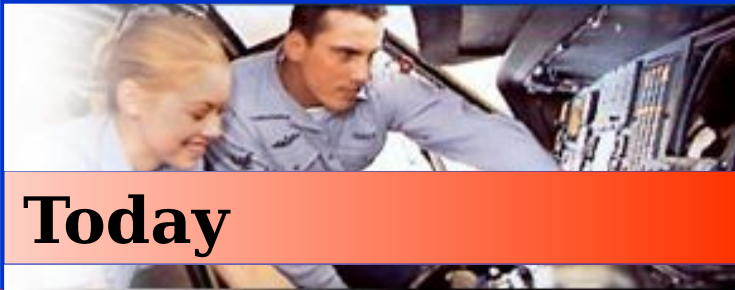
    Obtain greater breadth of information on applicants

    Utilize more information in making Sailor-job matches

    Validate decisions against outcomes other than "A" School academic attrition

Selection & Classification

	Today	**Vision**
Entrance Processing	**CAT-ASVAB (1.5-3.0 Hours)** Medical Fitness Background Check	**AFQT (0.5-1.0 Hour)** Medical Fitness Background Check
Boot Camp		**Whole Person Assessment** ▢ Intellectual ▢ ENCAPS ▢ JOIN
Classify For:	Training Success	Training Success Job Success _and_ Satisfaction Career Potential

Reduced Attrition and Improved Retention

S&C Research Area Goals

- **Improve the quality of Sailors who are selected and classified**

    Improve quality of classification decisions

    › **Use more information, multidimensional models**

    Broaden range of personal characteristics assessed for S&C

    › **Ability, personality, interests**

    Increase range and quality of outcome measures

    › **Training, job performance, job satisfaction, career progression, retention**

    Reduce unwanted attrition

    › **Understand attrition processes to mitigate individual and organizational dissatisfiers**

ENCAPS + ASVAB ➡ **Improved Classification**

ENCAPS – Computer Adaptive Assessment Battery more accurately matches people and rates

- **Job proficiency is multidimensional:**

    Technical-predicted by cognitive ability (ASVAB)

    Contextual/citizenship-predicted by personality

- **ASVAB predicts training performance, not job performance**

- **Personality increases performance prediction over cognitive ability alone (as much as 38% incrementally)**

Personality Constructs

Major Constructs Identified for Testing

- **Achievement motivation**
- **Stress tolerance**
- **Social orientation**
- **Adaptation/Flexibility**
- **Attention to Detail**

- **Self-reliance**
- **Vigilance**
- **Dependability**
- **Dutifulness/Integrity**
- **Willingness to learn**

ENCAPS Item Delivery

- **Benefits of CAT technology**
  - **Lower testing costs/time**
  - **More precise measurement**
  - **Increased user acceptance**
- **Item presentation**
  - **Items presented are tailored to individual**
  - **Forced choice format**
- **Paired comparison item format**
 - **Probability of item endorsement higher when item matches individual trait level**

ENCAPS Item

- **I always do the work that is expected of me**

  A. This describes me all of the time

  B. This describes me most of the time

  C. This describes me some of the time

  D. This describes me rarely

  E. This DOESN'T describe me

- **I always do the work that is expected of me**

ENCAPS Item Trait Level Distribution
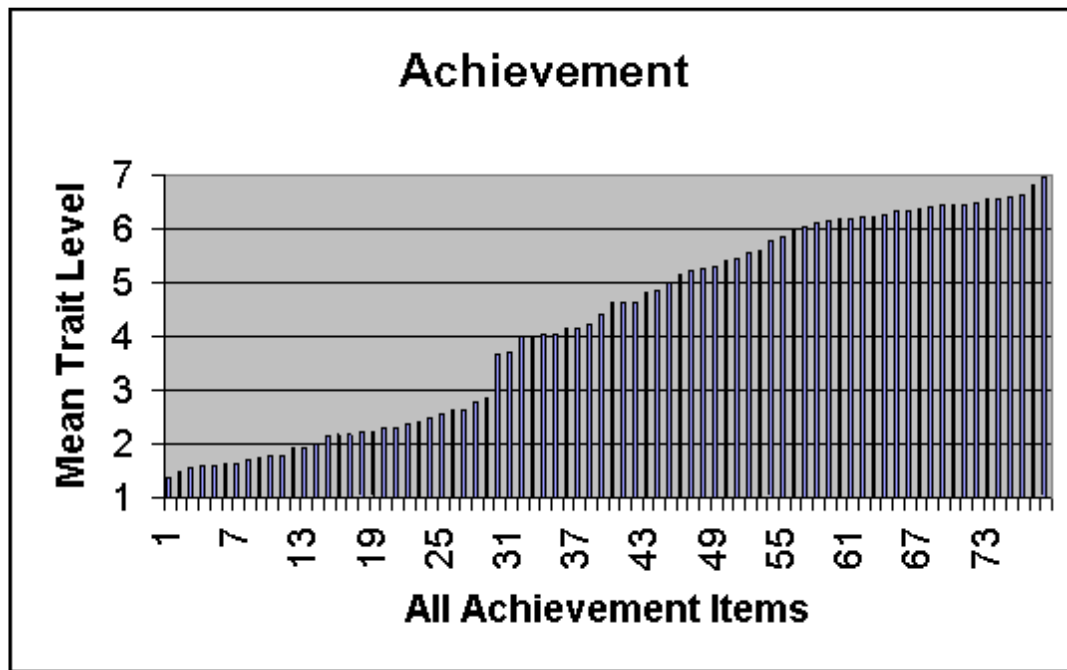
Progress

- **Developed items for 3 pilot constructs**

- **Pilot test (proof-of-concept version) with NROTC students (2 locations) SEP-OCT 03**

   Final determination on set of non-cognitive abilities

- **SME trait level ratings of new constructs**

- **Non-SME fakability/social desirability ratings**

- **Pilot test (beta version) with RTC recruits JUN 04**

- **Validation linked with Task Force Excel developed performance management tools, training outcomes, job attitudes, attrition, and retention**